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# EXPLORING GENERALIZED ANXIETY IN NON-ELITE ATHLETES OF PESHAWAR: A COMPREHENSIVE HEALTH ASSESSMENT WITH GENDER-BASED ANALYSIS

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## Abstract

***Background***: *Mental health issues, including generalized anxiety, are increasingly recognized in athletes, with notable gender differences in prevalence and severity. This study aims to assess anxiety levels, psycho-social factors, and dietary intake among non-elite athletes, focusing on gender-based variations.*

*Methodology: A total of 100 non-elite athletes (aged 17–29 years) from the University of Peshawar were selected using convenience and consent-based random sampling. Data was collected through a pretested questionnaire incorporating a validated Generalized Anxiety Disorder (GAD-7) scale for anxiety assessment. The analysis was conducted using SPSS software. ANOVA and Pearson Chi-Square tests were used to assess gender differences.*

***Results:*** *The results indicate that anxiety is prevalent among both male and female athletes, with mild anxiety being the most common level. Female athletes exhibited higher moderate anxiety (27.27%) compared to males (16.67%), while severe anxiety was more frequent in males (11.54%) than females (4.55%). Gender-based symptom analysis showed that females reported significantly higher nervousness ($p = 0.038$) and slightly higher excessive worrying, though most differences were not statistically significant. Overall, females tend to experience more moderate anxiety, whereas males are more likely to report severe anxiety symptoms.*

***Conclusion***: *The findings highlight a greater burden of anxiety among female non-elite athletes, emphasizing the need for targeted mental health interventions. The study underscores the widespread impact of anxiety among athletes, revealing notable gender-based differences in severity. These results emphasize the necessity of tailored mental health support and intervention programs addressing the distinct psychological needs of both male and female athletes.*

## INTRODUCTION

Nutrition serves as the cornerstone of an athlete's life, exerting a profound impact on their performance and overall well-being. To unlock their full potential, athletes must adhere to a well-balanced diet tailored

to their specific nutritional needs. This approach not only enables them to achieve optimal performance levels but also facilitates efficient recovery and reduces the risk of injuries. In addition to maintaining a balanced diet, many athletes also embrace the use of nutritional supplements to complement their dietary intake and support their training goals [1].

Athletes' general health is an important resource for their performance and development. Athletes face many health risk factors than the general population, such as high training loads, difficult competitions, and a stressful lifestyle. These health risk factors have been shown to increase their vulnerability to mental disorders and lower their quality of life. Along with this, athletes may be less likely than the public to seek mental health care due to stigma, a lack of psychological safety within sport to publicize mental health issues, or a fear of seeking help as a sign of weakness in high-performance sport [2].

Sports involve physical activities performed competitively under specific rules. They can take place on land, in water, or even in specialized environments. Participation requires movement and exercise, offering numerous health benefits. Research since the 1950s has highlighted the positive impact of sports on health, with scientific evidence emerging strongly in the 1980s and 1990s.Regular physical activity helps prevent conditions like hypertension, obesity, cardiovascular disease, diabetes, and depression. According to the United Nations, sports enhance bone strength, heart and lung function, cognitive ability, and motor skills. They also reduce osteoporosis risk and improve mobility in older adults. The World Health Organization notes that one in four individuals experiences mental health disorders, and sports play a key role in improving psychological well-being. Engaging in sports boosts self-confidence, self-esteem, and overall mental resilience, benefiting both athletes and communities [3].

Successful athletic performance during childhood and adolescence is influenced by a diverse range of physical and physiological factors, each playing a crucial role within the context of a specific sport. While targeted training of key performance variables can enhance future success for some young athletes, a broader perspective suggests that elite performance is shaped by the complex interplay between genetic predisposition and training adaptations. This dynamic interaction underscores the importance of both innate talent and structured athletic development in determining long-term success in sports [4]

Anxiety and worry are common emotions and a natural part of life. However, when they become excessive, chronic, uncontrollable, and pathological, they can lead to significant distress. Generalized Anxiety Disorder (GAD), among the various anxiety-related disorders, was only recognized as an independent category in the late 20th century. A defining characteristic of GAD is excessive and persistent worry, often triggered by automatic and intrusive "what if" thoughts—such as "What if I fail?"—which link future events to negative interpretations or worst-case scenarios in response to daily challenges and social stressors [5]

Athletes encounter a wide range of mental health challenges, including anxiety disorders such as generalized anxiety disorder (GAD), panic disorder, social anxiety disorder, obsessive-compulsive disorder (OCD), post-traumatic stress disorder (PTSD), separation anxiety, specific phobias, and competitive performance anxiety. Anxiety disorders are among the most prevalent mental health conditions globally, often developing earlier than many other psychiatric disorders. Various biopsychosocial factors contribute to the onset and persistence of anxiety in athletes. Their symptoms may present differently from those in the general population, requiring a tailored approach to diagnosis and treatment that considers both psychological and physiological factors. Anxiety is a distressing emotional state characterized by nervousness, apprehension, and concern over uncertain or uncontrollable events. Childhood and adolescence are critical periods for anxiety development, ranging from mild symptoms to full disorders. Additionally, disparities in urban and rural healthcare access, social amenities, and **socio-**economic status significantly impact mental health outcomes [6]

Generalized anxiety disorder (GAD) is a prevalent psychological disorder characterized by an excessive and unmanageable state of worry and anxiety about diverse facets of one's life.It is long-lasting, non-specific anxiety. it has been observed that anxiety disorders, including GAD, are linked to impairments

in cognitive abilities such as attention, working memory, and executive function [7]. Generalized anxiety disorder (GAD) is the most common anxiety disorder in primary care, with an 8% point prevalence and affecting 22% of patients reporting anxiety symptoms. However, many cases go unrecognized and untreated, with 41% of diagnosed patients not receiving appropriate care. Research suggests that GAD is strongly associated with suicide risk, even at sub-threshold levels [8].

GAD has a lifetime prevalence of 5.7% and a 12-month prevalence of 3.1%, with lower rates observed in male, Black, Asian, and Hispanic individuals than in female, White, and Native American populations. While onset typically occurs in the early to mid-30s, it is also the most common anxiety disorder among adolescents. GAD is often chronic and fluctuating, with remission being rare. It is highly comorbid with social phobia, major depression, and several personality disorders. GAD significantly impacts work performance, unemployment rates, disability claims, and suicide risk. Additionally, it is an independent risk factor for cardiovascular morbidity and mortality, leading to increased medical costs [9].

Excessive, uncontrollable, and usually unjustified worry about certain things is a sign of the mental and behavioral disease known as generalized anxiety disorder (GAD). Genetic research suggests that numerous genes are likely implicate in the development of GAD, even if much is yet unclear about this. As a result, if someone in a family has GAD, there is a high likelihood that someone else will also suffer from the illness, as well as another anxiety disorder. Individuals with GAD are frequently overly bothered about workaday affairs like health, assets, demise, family, accord issues, or effort challenges. Worry frequently interferes with daily functioning. Excessive concern, restlessness, difficulty sleeping, tiredness, irritability, sweating, and trembling are a few symptoms that may be present. For a formal diagnosis of GAD, symptoms must be persistent for at least six months and consistent [10].

Common mental health disorders (CMHDs), including anxiety and depression, affect millions of individuals globally each year. Although psychological treatments can be beneficial, only around half of patients achieve full recovery post-treatment. Enhancing treatment effectiveness depends on accurate methods for tracking symptom progression, which must be reliable and applicable across different patient groups to ensure precise evaluation and intervention [11]

These psychological characteristics are not only essential for athletic performance but also for mental well-being. When athletes cultivate these traits, they are better equipped to handle the pressures of competitive sports, which can alleviate anxiety and enhance overall performance. The perspective of athletes' mental readiness in various sport is different due to the features of its nature and type of skill; in other words, the optimized level of mental skills is different among sport fields. This also depends on the mental capability, body framework and cognitive abilities of athletes [12].

The mental health of elite athletes, particularly those competing at the collegiate, Olympic, or professional levels, has gained increasing attention. While sports participation offers numerous benefits, elite athletes face unique pressures, including performance expectations, injuries, and academic demands, which can negatively impact their mental well-being. A recent meta-analysis found that the prevalence of mental health issues in this group ranges from 19% for alcohol misuse to 34% for anxiety and depression. Anxiety disorders, characterized by excessive fear, tension, and worry, can significantly impair sports performance. Various factors contribute to the risk of developing anxiety disorders among elite athletes, including gender, age, career dissatisfaction, injuries, and adverse life events. However, limited research exists on other potential predictors, such as sport type, achievement level, ADHD, mental toughness, and fear of failure [13].

Anxiety disorders in elite athletes can arise from various psychological, physiological, and environmental factors. Research suggests that female and younger athletes are particularly vulnerable to generalized anxiety disorder (GAD) compared to their male and older counterparts due to hormonal fluctuations, societal expectations, and limited coping experience. Younger athletes may struggle with the pressures of proving themselves, securing sponsorships, and handling competition-related stress, while female athletes often face additional expectations regarding performance and appearance. Career dissatisfaction, whether due to lack of

progression, financial instability, or an unfulfilling training environment, can further contribute to anxiety. Additionally, sports injuries play a significant role, as being sidelined can lead to frustration, helplessness, and fear of re-injury, ultimately affecting an athlete's confidence and mental well-being. Adverse life events, such as personal loss or major transitions, can also exacerbate anxiety, making mental health support crucial for elite athletes [14].

Anxiety disorders are prevalent worldwide and contribute significantly to the global burden of disease. By 2020, they were projected to become the second leading cause of disability. These disorders also impose a substantial financial burden on the global economy. In Pakistan, the exact prevalence of anxiety disorders remains unknown. However, several studies measuring both anxiety and depression together have reported prevalence rates ranging from 7% to 50% across various urban centers. These figures are notably higher than those reported in other developing countries and nearly double the rates observed in Uganda, Lesotho, and Zimbabwe. With an estimated population of 152 million, Pakistan is the sixth most populous country in the world, projected to rise to fourth place by 2050. The nation is currently experiencing a demographic transition alongside growing insecurity, terrorism, economic instability, political uncertainty, unemployment, and social disruption. Additionally, approximately 39% of the population lives below the poverty line. Given these factors, the interplay between anxiety disorders and social, psychological, and biological determinants warrants further evaluation, making it a crucial objective of our research [15]

Given these trends, there is a growing need to assess anxiety among athletes, particularly in non-elite populations where mental health concerns may go unnoticed and severely impact their athletic performance and well-being.

## METHODOLOGY

**Study Design:** This cross-sectional study explored the impact of psycho-social factors, dietary intake patterns, and anxiety levels among young athletes aged 17–29 years in District Peshawar.

**Sample:** The sample comprised male and female non-professional athletes who were actively engaged in sports at the University of Peshawar and Islamia College University, Peshawar, including student athletes from the Department of Health and Physical Education from other institutions of university level. To ensure consistency in athletic experience, only individuals with at least two years of active sports participation were included. A consent-based convenience random sampling technique was utilized to assess a sample of 100 athletes to achieve a representative sample across various sports disciplines and athletic levels.

**Data Collection:** Information on demographic data, parental occupation, educational background, was gathered through a self-constructed, pretested structured questionnaire to ensure reliability and validity. To assess generalized anxiety, the study employed the standardized Generalized Anxiety Disorder-7 (GAD-7) Scale, a widely recognized tool for evaluating psychological distress (https://www.dartmouth-hitchcock.org/sites/default/files/2021-02/gad-7-anxiety-scale.pdf).

**Ethical Considerations:**

**Ethical Approval:** The research protocol will be reviewed and approved by the Institutional Ethical Review Committee of the College of Home Economics, University of Peshawar.

**Ethical Standards:** The study will adhere to the principles outlined in the Declaration of Helsinki.

**Informed Consent & Confidentiality and Anonymity:** All participants were explained the purpose of the study and informed written consents were procured prior to participation. The Participants' information was kept confidential and anonymous by allotting codes to each filled questionnaire.

**Data Analysis:** Data analysis was conducted using SPSS software, incorporating both descriptive and inferential statistical methods to derive meaningful insights.

## RESULTS

This section presents the findings of the study, categorized into demographic characteristics, parental background and generalized anxiety evaluations affecting young athletes in Peshawar.

### DEMOGRAPHIC DATA

**Table 1:** Demographic Data of Participants

| CATEGORY | SUBCATEGORY | PERCENTAGE (%) |
|---|---|---|
| Residential Area Type | Rural | 36.7 |
| | Urban | 63.3 |
| Accommodation Type | Boarder | 50 |
| | Non-Boarder | 50 |
| Family Type | Joint | 66.3 |
| | Nuclear | 33.7 |
| Gender | Male | 78 |
| | Female | 22 |
| Marital Status | Single | 91.8 |
| | Married | 5.2 |
| | Engaged | 3.1 |
| Number of Siblings | 0-2 Siblings | 15.3 |
| | 3-5 Siblings | 58.2 |
| | 6 or More Siblings | 26.5 |
| Number of Children | 0 Children | 90.9 |
| | 1-5 Children | 5.1 |
| | 6 or More Children | 4 |
| Age Group | 17-19 Years | 27 |
| | 20-22 Years | 39 |
| | 23 Years and Older | 34 |
| Subject Education | Intermediate | 31.87 |
| | Bachelors | 65.93 |
| | Masters | 2.20 |
| Subject Occupation | Employed | 10.42 |
| | Unemployed | 8.33 |
| | Student | 81.25 |
| Monthly Family Income | Less than 50 thousand | 27 |
| | 50 thousand-1 Lac | 43.8 |
| | More than 1 lac | 29.2 |
| Monthly Salary/ Pocket Money | Less than 10 thousand | 70.4 |
| | 10 thousand - 50 thousand | 25.9 |
| | 50 thousand - 1 lac | 3.7 |

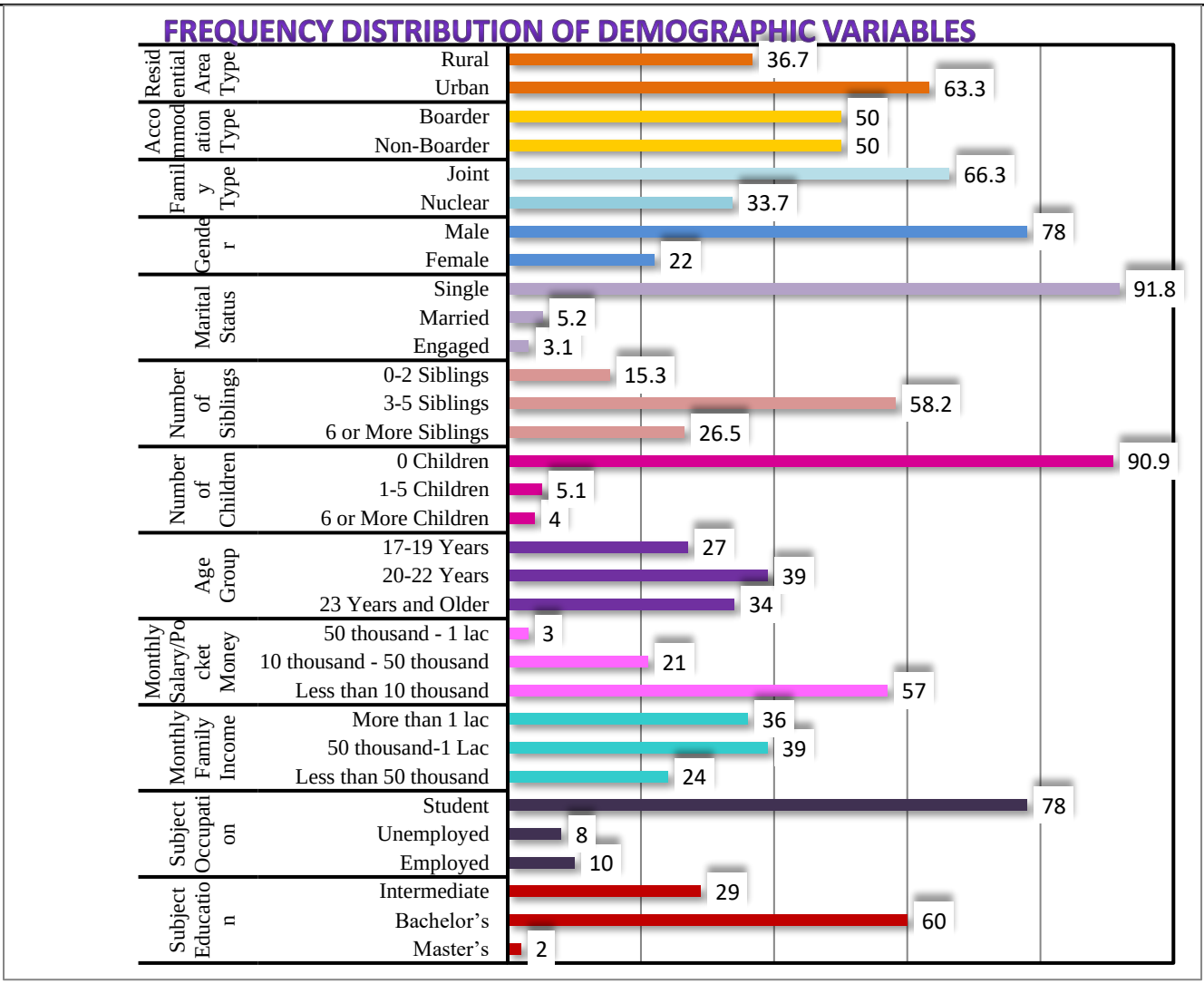


**Figure - 1:** Frequency Distribution of Demographic Variables

Table 1 and Figure 1 provide an overview of the demographic, educational, occupational, and financial characteristics of athletes. A majority (63.3%) are from urban areas, while 36.7% are from rural areas. Accommodation is evenly split between boarders and non-boarders (50% each). Most belong to joint families (66.3%), with the rest in nuclear families (33.7%). Males form the majority (78%), and most participants are single (91.8%), with small percentages married (5.2%) or engaged (3.1%). Regarding family structure, 58.2% have 3-5 siblings, 26.5% have 6 or more, and 15.3% have 0-2. Most (90.9%) have no children. Age distribution includes 39% aged 20-22, 34% aged 23+, and 27% aged 17-19. Educationally, 65.93% have a bachelor's degree, 31.87% have completed intermediate education, and 2.2% hold a master's degree. Occupationally, 81.25% are students, 10.42% are employed, and 8.33% are unemployed. Financially, 43.8% of families earn between 50K-1 lac per month, 29.2% earn more than 1 lac, and 27% earn less than 50K. Most (70.4%) receive less than 10K in salary/pocket money, while 25.9% earn 10K-50K, and 3.7% earn 50K-1 lac.

**PARENTAL CHARACTERISTICS: EDUCATION AND OCCUPATION**

**Table 2 :** Parental Education and Occupation

| VARIABLES | SUBCATEGORY | PERCENTAGE (%) |
|---|---|---|
| **Mother's Education** | Matriculation | 17 |
| | Intermediate | 18 |
| | Bachelors | 10 |
| | Masters | 4 |
| | Ph.D. | 3 |
| | None | 45 |
| **Father's Education** | Matriculation | 14 |
| | Intermediate | 14 |
| | Bachelors | 18 |
| | Masters | 30 |
| | Ph.D. | 6 |
| | None | 15 |
| **Mother's Occupation** | Housewife | 75 |
| | Lawyer | 2 |
| | Doctor | 1 |
| | Teacher | 4 |
| | Other | 10 |
| **Father's Occupation** | Businessman | 32 |
| | Professor | 9 |
| | Doctor | 9 |
| | Other | 46 |

Table 2 presents percentage distributions for variables related to parental education and occupation. For Mother's Education, the mean educational level is 3.96 with a standard deviation of 2.086. The majority of mothers have no formal education (45%), with smaller percentages having Matriculation (17%), Intermediate (18%), Bachelors (10%), Masters (4%), and Ph.D. (3%). In contrast, Father's Education shows a mean of 3.47 and a standard deviation of 1.582. Fathers tend to have higher educational attainment, with significant proportions holding Master's degrees (30%) and some with Ph.D.'s (6%), while 15% have no formal education. The Mother's Occupation data indicates that most mothers are housewives (75%), with minimal representation in professional roles such as Lawyer (2%), Doctor (1%), and Teacher (4%), and 10% in other occupations. For Father's Occupation, the mean is 2.74 with a standard deviation of 1.371. Fathers predominantly work as businessmen (32%), followed by Professors (9%), Doctors (9%), and 46% in other professions.

**GENERALIZED ANXIETY ASSESSMENT**

**Table 3:** Comparison of Responses by Gender across Various Questions

| S.No. | Questions | | N | Mean ± Std. Deviation | ANOVA | | Pearson Chi-Square P values |
|---|---|---|---|---|---|---|---|
| | | | | | F | Sig. | Within the Genders |
| 1. | Feeling nervous, anxious or on edge | Male | 78 | 0.71 ± 0.824 | 4.417 | .038 | .071 |
| | | Female | 22 | 1.14 ± 0.941 | | | |
| | | Total | 100 | 0.80 ± 0.865 | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2. | Not being able to stop to control worrying | Male | 78 | 0.82 ± 0.964 | 2.801 | .097 | .279 |
| | | Female | 22 | 1.23 ± 1.152 | | | |
| | | Total | 100 | 0.91 ± 1.016 | | | |
| 3. | Worrying too much about different things | Male | 78 | 1.22 ±0.976 | .899 | .345 | .215 |
| | | Female | 22 | 1.45 ± 1.224 | | | |
| | | Total | 100 | 1.27± 1.033 | | | |
| 4. | Trouble relaxing | Male | 78 | 1.23 ± 0.939 | 2.452 | .121 | .075 |
| | | Female | 22 | 0.86 ± 1.082 | | | |
| | | Total | 100 | 1.15 ± 0.978 | | | |
| 5. | Being so restless that it's hard to sit still | Male | 78 | 0.90 ± 0.906 | .065 | .799 | .952 |
| | | Female | 22 | 0.95 ± 0.999 | | | |
| | | Total | 100 | 0.91 ±0.922 | | | |
| 6. | Becoming easily annoyed or irritable | Male | 78 | 0.95 ± 0.979 | .348 | .556 | .201 |
| | | Female | 22 | 1.09 ± 1.065 | | | |
| | | Total | 100 | 0.98 ±0.995 | | | |
| 7. | Feeling afraid as if something awful might happen | Male | 78 | 0.87 ±0.958 | 1.616 | .207 | .096 |
| | | Female | 22 | 1.18 ±1.181 | | | |
| | | Total | 100 | 0.94 ± 1.013 | | | |

The data from table 3 shows Generalized Anxiety Disorder (GAD) symptoms among non-elite athletes in Peshawar, with a focus on gender-based differences. The findings indicate that analysis of anxiety-related symptoms among male and female athletes showed some notable differences. The ANOVA test helps determine whether there is a statistically significant difference between male and female participants, while the Pearson Chi-Square test assesses the association between gender and specific anxiety symptoms. The results revealed a significant gender difference in feeling nervous, anxious, or on edge, where females reported a higher mean score (1.14 ± 0.941) compared to males (0.71 ± 0.824). The ANOVA test confirmed this difference as statistically significant (F = 4.417, p = 0.038), meaning that gender plays a role in this particular symptom. However, the Pearson Chi-Square test did not show a strong association (p = 0.071), suggesting that while the difference exists, it may not be consistent across all individuals. For not being able to stop or control worrying, females again had a higher mean score (1.23 ± 1.152) than males (0.82 ± 0.964), but the difference was not statistically significant (F = 2.801, p = 0.097). This means that although females reported slightly more difficulty in controlling their worries, the variation between genders is not large enough to be considered meaningful. The Pearson Chi-Square test (p = 0.279) further confirmed that there is no strong gender-based pattern for this symptom.

Similarly, in worrying too much about different things, females had a slightly higher mean score (1.45 ± 1.224) than males (1.22 ± 0.976), but the difference was not statistically significant (F = 0.899, p = 0.345, Pearson Chi-Square p = 0.215), indicating that this symptom is fairly similar across genders. For trouble relaxing, males actually reported a slightly higher mean score (1.23 ± 0.939) than females (0.86 ± 1.082), but again, this difference was not significant (F = 2.452, p = 0.121, Pearson Chi-Square p = 0.075). This suggests that difficulty in relaxing is common among both genders, with no major variation. In being so restless that it is hard to sit still, the mean scores were very similar for males (0.90 ± 0.906) and females (0.95 ± 0.999), and the tests showed no significant difference (F = 0.065, p = 0.799, Pearson Chi-Square p = 0.952), meaning this symptom affects both genders equally. For becoming easily annoyed or irritable, females had a slightly higher mean score (1.09 ± 1.065) than males (0.95 ± 0.979), but the ANOVA test (F = 0.348, p = 0.556) and Pearson Chi-Square test (p = 0.201) showed no significant differences, suggesting that irritability is experienced at similar levels by both genders. Finally, in feeling afraid as if something awful might happen, females reported a higher mean score (1.18 ± 1.181) compared

to males (0.87 ± 0.958), but this difference was not statistically significant (F = 1.616, p = 0.207, Pearson Chi-Square p = 0.096).

Overall, the results suggest that while females tend to report slightly higher anxiety symptoms than males, the differences are not strong enough to be statistically significant—except for feeling nervous, anxious, or on edge, where gender did have a significant impact. This means that in most cases, both male and female athletes experience similar levels of anxiety-related symptoms, but females may be more prone to feeling nervous or anxious.

**Table 4:** Distribution of GAD-7 Anxiety Levels

| Categories | Reference Value | Male Frequency (%) | Female Frequency (%) | Total Frequency (%) |
|---|---|---|---|---|
| **Minimal Anxiety** | 0 - 4 | 24 (30.77%) | 6 (27.27%) | 30 (30.00%) |
| **Mild Anxiety** | 5 - 9 | 32 (41.03%) | 9 (40.91%) | 41 (41.00%) |
| **Moderate Anxiety** | 10 - 14 | 13 (16.67%) | 6 (27.27%) | 19 (19.00%) |
| **Severe Anxiety** | 15 - 21 | 9 (11.54%) | 1 (4.55%) | 10 (10.00%) |
| **Total** | - | **78 (100%)** | **22 (100%)** | **100 (100%)** |

The table presents the distribution of anxiety levels among male and female athletes based on their Generalized Anxiety Disorder-7 (GAD-7) scores. It categorizes participants into four anxiety severity levels: minimal (0–4), mild (5–9), moderate (10–14), and severe (15–21).

A comparison between genders reveals that a higher proportion of males (30.77%) reported minimal anxiety compared to females (27.27%). Similarly, mild anxiety levels were nearly identical between males (41.03%) and females (40.91%). However, moderate anxiety was more prevalent among female athletes (27.27%) than males (16.67%), indicating that females may experience slightly higher levels of anxiety symptoms. Additionally, severe anxiety was more frequent among males (11.54%) than females (4.55%), suggesting that while moderate anxiety is more common in females, severe anxiety is more prominent in males.

Overall, the data indicate that anxiety is present among both genders, with mild anxiety being the most frequently reported level. However, gender differences highlight that females tend to experience more moderate anxiety, whereas males are more likely to fall into the severe anxiety category.

## DISCUSSION

When compared with similar studies, certain trends emerge. For example, the high percentage of urban respondents (63.3%) aligns with findings in other studies that indicate a growing concentration of athletes and students in urban areas, where access to sports facilities, education, and employment opportunities are more readily available (16). This is consistent with urbanization trends globally, where rural areas experience depopulation as individuals seek better opportunities in cities. The Gender Distribution in this study, with a high male participation (78%), is not uncommon in research related to sports, as males often dominate participation in various athletic activities, especially in regions where social and cultural factors may limit female participation [17]. In contrast, studies conducted in more gender-equal regions may show a more balanced gender representation. The Family Structure results, where 66.3% of the sample comes from joint families, reflect cultural norms prevalent in certain parts of the world, such as South Asia, where joint families remain common. Research conducted in Western countries, however, would likely show a reverse trend, with nuclear families being the majority [18]. The Educational Attainment data, with 65.93% holding bachelor's degrees, suggests a highly educated sample. In comparison, global averages show lower levels of higher education attainment, especially in lower-income regions [19. This indicates that the sample group may come from a relatively privileged background, with better access to education. In terms of Occupation, the large proportion of students (81.25%) is consistent with the fact that younger populations, particularly those involved in sports, are often still pursuing education. This pattern is also observed in other studies, where student populations

frequently make up the majority in research involving young athletes [20].

Comparing this dataset to existing research, notable differences emerge in educational attainment and occupational roles between mothers and fathers. The high percentage of mothers with no formal education (45%) contrasts sharply with studies like those by [21], which report higher educational levels among mothers in public universities. This discrepancy may reflect regional socio-economic challenges or restricted educational opportunities in the current dataset's context. Conversely, the higher mean educational level among fathers, with significant proportions holding advanced degrees, is consistent with findings. They observed that paternal educational attainment often surpasses maternal levels due to historical and socio-economic factors [22]. Occupational roles further highlight these disparities. The predominance of housewives among mothers (75%) contrasts with the more varied professional roles of fathers, such as businessmen and professors. This observation aligns with global trends where traditional gender roles influence occupational distribution. Research supports this view, noting the rise of nuclear families and evolving gender roles that impact occupational choices. The data, therefore, reflects broader socio-economic and cultural dynamics that shape parental roles and highlights significant educational and occupational differences between genders [23].

The findings align with previous studies that report no significant gender differences in worry control [24]. This suggests that both males and females experience similar levels of difficulty in managing excessive worry. The lack of significant gender differences in restlessness further supports the notion that both genders exhibit comparable levels of physical and cognitive agitation.

However, the significant difference in trouble relaxing aligns with research indicating that males may experience greater difficulty in relaxation compared to females [25]. Possible explanations could include differences in coping mechanisms, stress management strategies, or societal expectations that impact male relaxation patterns. The non-significant results for irritability and fear are consistent with prior research that has found variable outcomes regarding these emotions across genders [24]. This variability suggests that factors beyond gender, such as personality traits, life experiences, and environmental influences, may play a more critical role in determining levels of irritability and fear.

The analysis of anxiety levels among male and female athletes, as measured by the Generalized Anxiety Disorder-7 (GAD-7) scale, reveals notable gender-based differences. Female athletes exhibit higher rates of moderate anxiety, while severe anxiety is more prevalent among male athletes. These findings align with existing literature on anxiety prevalence in athletic populations. Research indicates that female athletes generally report higher instances of anxiety compared to their male counterparts. A study found that female athletes reported higher levels of general sports anxiety compared to male athletes [26]. Similarly, a study reported that female athletes exhibited higher cognitive anxiety levels compared to male athletes [27]. These studies suggest that female athletes may be more susceptible to anxiety disorders, potentially due to factors such as societal pressures, performance expectations, and balancing multiple roles. Research indicates that female athletes often report higher levels of sports competitive anxiety compared to male athletes. This disparity may be attributed to societal pressures, performance expectations, and balancing multiple roles [28]. Conversely, the higher prevalence of severe anxiety among male athletes observed in our analysis is noteworthy. While some studies have reported higher rates of anxiety disorders in female athletes, others have found comparable or even higher rates in male athletes. For instance, a study on elite athletes [29] found that male athletes experienced anxiety symptoms during a competitive season. Similar research has demonstrated that various factors, including gender, social environment, and psychological resilience, influence mental health outcomes among athletes. Studies have shown that female athletes tend to report higher levels of anxiety, depression, and stress compared to their male counterparts, often due to factors such as societal expectations, body image concerns, and greater exposure to adverse life events. Additionally, research highlights the role of self-esteem, coping mechanisms, and access to mental health support in shaping athletes' psychological well-being. Differences in sport type, competition level, and injury history also

contribute to variations in mental health symptoms across genders. These findings emphasize the need for gender-sensitive mental health interventions in sports settings [30]These discrepancies may be attributed to underreporting among male athletes due to stigma surrounding mental health, differences in coping mechanisms, or sport-specific stressors. In conclusion, our findings underscore the importance of addressing anxiety among athletes, with particular attention to gender-specific factors. Implementing tailored mental health support and interventions can enhance the well-being and performance of both male and female athletes.

## CONCLUSION

This study highlights the significant prevalence of generalized anxiety among non-elite athletes in Peshawar, with notable gender-based differences in severity. Female athletes exhibited higher overall anxiety levels, while male athletes reported greater difficulty in relaxation. The findings emphasize the urgent need for targeted mental health interventions tailored to the specific psychological and physiological needs of athletes. Given the increasing recognition of anxiety disorders in sports, implementing structured mental health support programs, including psychological counseling, stress management strategies, and athlete-focused mental wellness initiatives, is crucial. Future research should further explore the underlying socio-cultural, environmental, and psychological factors contributing to anxiety among athletes to develop more effective intervention strategies.

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